DOCUMENT RESUME

ED 097 689 CS 201 608

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TITLE Design and Validation of Instruction in Question-Directed Narrative Writing, Developed through Discrimination Programming.
PUB DATE 74
NOTE 14p.; Paper summarizing doctoral dissertation, University of Michigan, 1974

EDRS PRICE MF-$0.75 HC-$1.50 PLUS POSTAGE
DESCRIPTORS *Composition (Literary); Conceptual Schemes; *Educational Research; Secondary Education; *Student Writing Models; *Teaching Methods; *Teaching Models; Writing Skills
IDENTIFIERS *Discrimination Programing

ABSTRACT

The purpose of this study was to investigate the problem of designing instruction in the process of composing. The scope of the study is limited to one kind of writing (the short, autobiographical narrative) and to one kind of instruction (a self-instructional program, developed by means of discrimination programing). Subjects for the study were 27 high school students. Results of the study indicated that three predicted changes related to improvement in the quality of "expansion" received considerable support, with the changes being statistically significant. The three other predications--two of which were related to improvement in the quality of "focus"--showed fewer gains or no gains at all. (RB)

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DESIGN AND VALIDATION OF INSTRUCTION IN QUESTION-DIRECTED NARRATIVE WRITING, DEVELOPED THROUGH DISCRIMINATION PROGRAMMING*

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The Problem

During the 1960's and early 1970's, reviews of research and other statements on the teaching of writing identified a major weakness in past instruction in writing: the general lack of attention to the process of composing. Instructional designs tended to focus on qualities of the finished written product, but failed to teach students strategies for guiding their performance from the initial critically important operations of pre-writing to the final operations of revising.

In this study, my general purpose was to investigate the problem of designing instruction in the process of composing. I limited the scope of my study to one kind of writing (the short, autobiographical narrative) and to one kind of instruction (a self-instructional program, developed by means of discrimation programming). The particular purpose of the study was to design and validate the program, and, in doing so, seek answers to four questions:

1) Can a model be described for the process of composing the short autobiographical narrative?
2) Can the model be translated into a self-instructional program?
3) Will students who work through the program show significant improvement in their writing?
4) Can the improvement be objectively measured?

*This article summarizes a doctoral dissertation of the same title, completed at The University of Michigan, Ann Arbor, Michigan, 1974. I wish to acknowledge the assistance of the members of the committee: Donald E. P. Smith, A. Stephen Dunning, Alton L. Becker, and Bernard Van T'Hul.

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Research Directly Related to Process

Odell (1970) and Emig (1971) conducted their own studies in the pre-writing stage of composition and also reviewed other research in the process of composing. Both found only a few studies directly or indirectly related to process. Both also reviewed contemporary rhetoric and composition textbooks and concluded that there was a general failure on the part of the texts to provide students with assistance in the initial operations of the pre-writing stage (e.g., finding subjects for a paper from the writer's own experience).

Of the 504 studies reviewed in Research and Written Composition (Braddock et al., 1963), Emig (1971, p. 19) found only two that dealt "even indirectly with the process of writing among adolescents." One study (Angene, 1955) examined composition activities for secondary school students but based the analysis of the process of writing solely on processes engaged in by professional writers. The other study (Van Bruggen, 1946) investigated only the physical rate at which secondary school students wrote.

A study, seen by Emig (1971, p. 20) as directly related to process, was one conducted by Tovatt (1965) of an "oral-aural-visual" approach to learning composition. In this approach, students composed aloud and listened to a recording of themselves as they composed. In addition, their teachers provided, through demonstrations, models of the composing process. Results of the study indicated an increase in abilities in language arts but not a superiority of the approach over conventional instruction. Both Emig and Odell discussed a study (Rohman & Wiecke, 1964) of an experimental course that approached the process of composing as consisting of three stages, pre-writing, writing, and re-writing, and that emphasized pre-writing activities. The results of the study indicated a superiority of the essays produced in the course over essays producted in control sections.

Odell (1970) designed and validated his own experimental course in composition, in which he taught students a hueristic model of the pre-writing stage, based on the tagmemic model of Young, Becker, & Pike (1970). Emig (1971) conducted, what she termed, a "case-study approach" to investigating the pre-writing stage in the composing processes of twelfth-graders. Emig (1971, p. 21) saw her purpose as an "effort to describe" rather than "to instruct or teach" the process. However, I view her methods of collecting data as interventions similiar to those in the experimental course in Tovatt's study: Emig asked students to compose aloud, asked questions as they composed, and gave them assignments.

Odell discussed one other work, James Moffett's A Student-Centered Language Arts Curriculum, K-13 (1968), for its contribution to instruction in process. Moffett did not see his work as empirical research: he did not attempt to validate the instruction nor to compare it to conventional methods. He did, however, over a two-year period, test and revise instructional procedures and an entire curriculum design which emphasized sequential writing activities, as well as learning experiences that integrated writing, reading, listening and speaking activities. Moffett's contribution to instruction in process was two-fold. First, sequences were developed that moved students from relatively simple kinds of writing to relatively difficult kinds; e.g., from first-person autobiographical narratives to third-person persuasive essays. Second, each kind of writing was prepared through a sequence of pre-writing exercises.

I found one other, earlier study which gave consideration to pre-writing: Roland J. Harris's "An Experimental Inquiry into the Functions and Value of Formal Grammar in the Teaching of English" (1962). The study may have been overlooked by Odell and Emig because it had been discussed in other reviews (Braddock et al., 1963; Sherwin, 1969) as an

example of research that compared the effects of a learning experience that emphasized formal instruction in grammar with one that de-emphasized instruction in grammar in favor of more, and more varied, writing activities. Though Harris was primarily interested in investigating the effect of instruction in formal grammar, in designing an alternative learning experience to compare with the approach that emphasized formal grammar, he provided for a number of important aspects of instruction in the process of composing. For example, students received assistance in the pre-writing stage: teachers provided instructions for planning assignments, and students worked together to develop assignments.

Discussion: The "Process-Approach" Versus the "Writing-Approach"

Harris's study had other noteworthy elements in addition to the consideration of the pre-writing stage. In comparing Harris's study with studies that investigated the "writing-approach," I found an important difference between studies in the "process-approach" and those in the "writing-approach." The difference is that the "process-approach" took into account important variables in instruction in writing that were either totally neglected or, at best, insufficiently considered in the "writing-approach."

McColly's study (1963), for example, investigated the effect of what he termed "writing per se" or the "mere writing" approach on improvement in writing. I saw a problem with the "mere writing" approach in that the students never merely wrote. Rather, they were restricted to one kind of writing -- the essay; to one type of subject -- subjects relevant to their study of literature; to one kind of writing experience -- in-class, impromptu writing; and to one kind of feedback -- mainly negative, in the form of corrections by the teacher. Futhermore, McColly reported no provision for instruction in the pre-writing stage but did report that teachers who participated in the study were instructed to allow students no opportunity for re-writing.

In contrast, in Harris's study, the learning experience provided for a variety of kinds and subjects of writing, including writing in the personal mode, through narratives and diaries. Students had the opportunity to plan and revise their compositions. There were two kinds of feedback: peer-comment and comments made by the teacher, which students could act upon in revising their compositions. Finally, as Sherwin noted (1969, p. 133), Harris measured specific changes in the students' writing through "quantitative measures for certain features of writing style." Frequency counts were made of changes in total number of words per number of errors, number of different syntactic patterns, number of complex sentences, and number of sentences with two or more phrases.

The Task-Analysis

By means of a task-analysis (Smith, 1967), I arrived at the following description of the narrative, as a type of discourse, and of the performance of writing a narrative. Any narrative may be thought of as a discourse which answers a set of seven questions (other types of discourse, for example, expository writing, answer other sets of questions):

What Was It About? (the incident narrated)
What Happened? (the action that occurred in the incident)
Why Did It Happen? (the causes of the action)
Who Did It Happen To? (the main "character" or the person at the center of the action)
Who Else Was Involved? (the minor "character(s)" or the person(s) who had a secondary role in the action)
When Did It Happen? (the time of the action)
Where Did It Happen? (the place of the action)

The performance of composing a narrative may then be described, simply, as writing to answer those seven questions. The questions serve as stimuli for eliciting the writing responses. The relationships among the questions and the sequence in which the questions are presented also serve as a strategy or a heuristic procedure for guiding the process of composing.

An important feature of this model of the process of composing is that the student composes on paper. He makes overt responses during the pre-writing stage (generating a list of possible subjects for the narrative, chosing one as the answer to "What Was It About?," and writing a first draft by answering "What Happened?"). The remaining questions guide the student in expanding his narrative for detail and completeness.

Predictions For The Study

An important part of the study was the attempt to specify particular changes that would occur in the students' writing as they worked on the program. These changes had to be indicative of improvement in composition skills and had to be measureable. Much of past research in instruction in writing attempted to measure improvement in terms of writing skills not directly or not even indirectly related to the process of composing: e.g., increases in syntactic complexity or decreases in various errors, in punctuation, usage, spelling. Other research, which attempted to measure overall improvement in writing (with the exception of Odell, 1970) relied on quick, subjective judgements on such qualities as significance of ideas, organization, expression, or precision.

Moffett (1968) suggested two qualities which seem indicative of overall improvement in composing: "focus" and "expansion." These qualities are related to, but not exactly synonymous with, the traditional qualities of unity and coherence and adequate development. "Focus" has to do with staying on one subject, but, more than that, with chosing a subject the size of which is appropriate to a particular composition. The term also suggests focusing on the most important aspect of the subject.

Unsuccessful writers tend to choose subjects that are too large, as in the case of a student who attempted, in 200 words to narrate an entire two-week trip to the East Coast or a student who attempted to write a 500 word essay on the "topic" of "Psychology." When there is such a great discrepancy between the size of the subject and the size of the composition, the writing tends to be incomplete, general, vague, often confusing, and lacking in any sense of development or interest.

"Expansion" has to do with fully developing a properly focused subject, so that the composition is complete, the subject is treated in depth, and the style of the writing is, as a result, clear, specific and concrete, and interesting. Again, the unsuccessful writer tends to under-write; he fails to fully and completely develop the subject (often because his subject is too large). For many writers, the failure to expand upon the subject may be the result of lack of fluency in writing. With little or no regular practice in writing, the student may experience such great difficulty in simply putting words down on paper that he has neither the time nor the energy left to fully develop the subject.

Moffett did not suggest specific measures of improvement in the qualities of focus and expansion. Therefore, a major part of my study involved the desgn and test of different measures. Three predictions were made for gains indicative of improvement in expansion. Three separate measures were used: for completeness, development, and length. Two predictions were made for gains indicative of improvement of "focus." Two measures were used: for unity and for consistency of point of view. A sixth prediction was made for improvement in chronological order, since chronology is the basic ordering principle in narrative writing.

The Program

Five drafts of the program were written during a six-month period of developmental testing. The last draft consisted of four sections totalling 85 pages; it took, on an average, six hours for completion. The first section presents the pre-test (writing a narrative) and a set of preliminary writing exercises. The second section presents the first two questions -- "What Was It About?" and "What Happened?" The next two sections present the other questions. The questions are presented first through identification tasks, in which the student reads sample narratives to answer the questions, and then through production tasks, in which the student begins and develops his own narratives by writing in response to the questions. At the end of the second, third, and fourth sections, the student completes a narrative, using the questions introduced up to those points in the program.

The most important tasks in the program are those which direct the pre-writing stage. The tasks are adapted from a narrative-writing exercise developed by Moffett (1968). The frames in the program in which these tasks appear are presented in Figure 1.

Developmental Testing

The drafts of the program were tested by means of individual tryouts by ten secondary school students. The students ranged in age from 11 to 18 years; in year in school, from 7th to 12th grade; in reading grade-level (as measured by the Wide Range Achievement Tests), from 6.5 to 10.5; and in grades in English (from the marking period prior to the time of the tryout), from E to A.

Large Group Testing

The fifth draft of the program was administered to 35 secondary school students for validation testing. Twenty of the students worked on the program as an independent project to be completed in fulfillment of their requirements for a 10th grade English course. The other 15 students worked on the program entirely on their own; the work was not part of a course. In the first group, there were 8 boys and 12 girls, ranging in age from 15 years, 6 months, to 16 years 11 months. Their reading grade-level (as measured on the Gates MacGinitie Reading Tests) ranged from 4.6 to 12.0 in Comprehension, and from 4.6 to 12.9 in Vocabulary. Their grades in English (from the marking period prior to the time of the test) ranged from I (Incomplete) to A. In the second group, there were 9 boys and 6 girls, ranging in age from 12 years, 10 months, to 16 years, 0 months, and in year in school, from 7th to 10th grade. Their reading grade level (as measured on the Wide Range Achievement Tests) ranged from 7.6 to 15.0, and their grades in English ranged from E to A.

The programs were administered by three secondary school teachers. Because of the self-instructional nature of the program, I asked the teachers to avoid, as much as possible, providing assistance to the students, and to note any assistance given. The only assistance provided that was reported to me involved helping students establish their baseline on a graph; 17 students received this assistance.

Feedback to the students was limited to a graph, which was included in the program. Students recorded their performance on each of the four narratives they wrote by using a simple point system (one point for each word and one point for each question answered, in each narrative).

Results

The results of the study were obtained by a comparison of the pre and post-narratives for the six predicted changes. Multiple copies were made of the narratives and distributed in random order and with a code number to judges, who received training in the measurement system. Because the measurement was extensive and time-consuming, no one judge scored all of the variables, but each variable was scored by at least two judges.

Of the 35 students who started the program, 27 completed it during the period of the validation-testing. Results are reported only for completions.

The first predicted change was that post-tests would show improvement in the quality of Completeness as indicated by 1) an increase in the number of questions that were answered to any degree, and 2) an increase in the completeness of the answers. (The second part of the measure was based on a scale of zero to 40 points: a total possible score of 10 points for a complete answer to the question "What Happened?", which is the basic question in a narrative, and a total possible score of 5 points each for the other questions.)

For the first part of the prediction, of 27 post-tests, three showed an increase; one, a decrease; and 23, no change (i.e., all questions were answered to some degree in both the pre and post-narratives). For the second part of the prediction, 21 post-narratives showed an increase in completeness of answers; 5, a decrease; and one, no change. The mean score was an increase of six points or 23 percent, a difference significant at the .01 level.

The second predicted change was that post-narratives would show an increase in the quality of Development, as indicated by an increase in the number of words that carried specific information in answer to each of the questions. Of 27 post-narratives, 19 showed an increase; 8, a decrease; and none, no change. The mean score was a gain of 65 points or 41 percent, a difference significant at the .01 level.

The third prediction was that post-narratives would show an overall increase in length or total number of words. Of 27 post-narratives, 22 showed an increase; 5, a decrease; none, no change. The mean score was a gain of 51 points or 37 percent, a difference significant at the .01 level.

The fourth prediction was that post-narratives would show improvement in the quality of Unity as represented by meeting the following criterion performance: The student would select, as the subject of his narrative, one incident (an event that lasted less than 24 hours) and develop that into the main action of his narrative. Of the 27 narratives, 19 met the criterion performance on the pre-test; 24, on the post-test. Of the 24 students who met or maintained the criterion performance on their post-tests, 16 did so while showing increases in both number of words and development.

The fifth prediction was that post-narratives would show improvement in the category of Point of View, as represented by meeting the following criterion performance: The student would select, as the subject as his narrative, an incident in which he was the "main character," the person the incident happened to. The first-person, "autobiographical-I" would be selected, and employed consistently, as the point of view. Of the 27 students, 17 met the criterion on their pre-tests; 21, on their post-tests. Of the 21 students who met or maintained the criterion performance on the post-tests, 17 did so while showing increases in both number of words and development.

The sixth prediction was that post-narratives would show improvement in the category of chronological order, as measured by a count of number of verbs and verbals judged to be in order. Of 27 students, 3 had problems in chronological order on their pre-tests; 5, on their post-tests. The largest number of problems on a pre-test was 2 (2 verbs or verbals judged out of order); on a post-test, 1.

Summary and Conclusions

This study was addressed to the following questions:

1. Can a model be described for the process of composing the short autobiographical narrative?

2. Can the model be translated into a self-instructional program?
3. Will students who work through the program show significant improvement in their writing?
4. Can improvement be objectively measured?

A model was described for the process of composing the short, autobiographical narrative. The model was translated into a self-instructional program by means of the strategies of discrimination programming (Smith, 1967). The central feature of both the theoretical model and the instruction was the question-directed-writing approach.

Results of the study are summarized in the table below. Three predicted changes (related to improvement in the quality of "Expansion") received considerable support, with changes that were statistically significant. The other three predictions (two related to improvement in the quality of "Focus") showed less gains or no gains at all. What might be noteworthy is the number of post-narratives that show maintenance of criterion performances, while gains were made in the other three variables.

TABLE

Comparison of Changes in Six Variables, Completeness, Development, Number of Words, Unity, Point of View, Chronological Order, in Narratives Written by Secondary School Students, After Instruction

Variable	Increase	Decrease	No Change
Completeness	21	5	1
Development	19	8	0
Number of Words	22	5	0
Unity	5	1	21
Point of View	4	5	18
Chronological Order	3	5	19

PREPARING A LIST OF MEMORIES

STEP ONE: The purpose of this step is to write down a lot of different memories. These memories will be used as the subjects of your narratives.

Directions:
a) You will be writing as much as you can in fifteen minutes.
b) Before you start writing, look around the room until you see something that reminds you of something that happened to you, some memory.
c) When that memory comes to mind, write it down.
d) Then ask yourself what else you are reminded of and write down whatever comes to your mind.
e) Once you get started, let your mind go from one memory to another and put down everything that comes to mind.
f) Start your list of memories on the opposite page.

STEP TWO: The purpose of this step is to choose one of the memories in your list as a subject for a narrative.

Directions:
a) Read over your list of memories and
b) Ask yourself -- which memory would I like to write more about?
c) Choose the memory and circle it.

STEP THREE: The purpose of this step is to write as many details as you can about the memory. The details will be the material for your narrative.

Directions:
a) Under the question (on the next page) WHAT WAS IT ABOUT? write the words you circled in STEP TWO.
b) Think about this memory and get ready to write down everything that comes to mind.
c) Write down the details under the question WHAT HAPPENED?
d) Write as much as you can in fifteen minutes.

MEMORY WRITING FOR NARRATIVE #1

WHAT WAS IT ABOUT?

_____

WHAT HAPPENED?

_____

_____

_____

Figure 1. Pre-Writing Tasks from the Program in Question-Directed Narrative Writing

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